Southern Sierra SSA.

Forest Health Protection

Trip Report SSSA 08-06

PURPOSE: To make a briefing on the "Insects and Forest Mortality", of the Devils Postpile National Monument.

DATE OF TRAVEL: 8th August 2008
LOCATION: Yosemite National Park
FHP PERSONNEL: B Bulaon and M. MacKenzie

OTHER ATTENDEES: About 40 people, mostly hydrologists and climate modelers, with at least 4 staff from the Inyo NF.

SUMMARY: The superintendent of the Devils Postpile National Monument (Deanna Dulen) organized a one day workshop at the lodge in Yosemite National Park, and on the strength of a earlier Site Visit, invited Beverly to make a briefing on FH of the monument. Beverly had a sore throat so Martin made the presentation, based on Beverly's Powerpoint.

> The tile of the workshop was; **"Managing Devils Postpile National Monument (DEPO) in an Era of Changing: A workshop to explore future climate variability, impacts and adaptation options."**

RESTORATION becomes REALIGNMENT. The workshop was led by Angie Evenden the NPS research Coordinator, great Basin CESU, and the keynote speaker was Connie Millar, Sierra Nevada Research Center, PSW Station. In her keynote address, Connie Millar made the point that she thought that in the future, after stand replacing events, the emphasis would switch from restoration to realignment of ecosystems (to reflect Climate Change).

The significance of the 800 acre monument lies in its unique location and the properties this location gives it. While it might not seem like a very high figure, the park is about 8.5% wetland and has an arm of the San Joaquin river flow through it. Without having truly surveyed the invertebrates and only a rudimentary survey of the aquatic life forms the monument has documented 400 species in its 800 acres, and all within 1,000 ft of elevation. Additionally, it has

very few invasive weed species. The monument is known for its very cold winters. Being situated at a low pass in the Sierras and on the San Joaquin drainage it gets impacted by winter storms and the associated cold air that drops into the valley. Additionally its location puts it on the migration route of many birds. These pathways may contribute to its high biodiversity.

Given the specter of climate change it is thought that places like the DEPO may become refugia of species negatively impacted by climate change. And, thus a great place to study the biology of Climate Change.

The park superintendent is going out of her way to make the park a place that is known for being "Research Friendly". Given the monuments small size scientists are finding that it is relatively easy (and satisfying) to a complete and statistically significant census of the organisms and attributes they study. The superintendent is proposing some thing like an 800 acre Research Natural Area (RNA) in which the public can see scientist at work.

FOREST HEALTH. While most of the speakers were climate modelers and hydrologists, the SSSA briefing was the only one that talked about tree health and the SSSA speaker was the only one who was a forester. Warnings that the MPB would continue to kill Lodgepole pine if the density was not lowered gained little traction. But, the suggestion that the MPB had not been a significant problem this year was because much of the brood did not overwinter last year due to the cold temperatures, was warmly received. In a park that is 90% wilderness and only 8.5 %wetland, the discussion was focused on hydrology plus modeling climate trends and not on the health of the trees.

Although the park is wedged between the Sierra and Inyo NF's, road access is only through the Inyo NF, and this forest and the DEPO have a long and productive history of cooperation. The park is a West side forest with an East side access. The monument will celebrate its centennial in 2010 and hopes to have its first General Management Plan drafted by then. We believe we demonstrated that FHP will make a contribution to the plan and anticipate the SSSA being contributing in various aspects to the overall project.

Martin MacKenzie
SSSA Forest Pathologist
209-532-3671 x2
mmackenzie@fs.fed.us